

## ABSTRACT OF THE DISCLOSURE

A color thermal printer is provided with a humidity sensor and a paper type discerning sensor. The humidity measured in the humidity sensor is converted to a humidity dependency correction coefficient by an LUT memory. The paper type discerned by the paper type discerning sensor is converted to a paper type dependency correction coefficient by an LUT memory. Image data of one line is converted to a coefficient of dynamic friction of each heating element. A printing load calculator calculates the printing load of one line based on the coefficient of dynamic friction of one line, the humidity correction coefficient, the paper type correction coefficient, and pressing force of a thermal head. The rotation speed of a feeding motor for feeding a color thermal recording paper is controlled in response to the printing load of each line.